Appl. No. 10/511,343 Atnv. Ref.: 3665-122

Amendment After Final Rejection

September 16, 2009

AMENDMENTS TO THE CLAIMS:

Please amend the claims as follows:

Claims 1-34. (Canceled)

- 35. (Currently Amended) A plasmid or a recombinant viral vector for *in vitro* or ex vivo transgene delivery into mammalian <u>neuronal</u> cells, wherein said vector comprises a chimeric genetic construct comprising a transgene operably linked to at least two distinct posttranscriptional regulatory elements functional in mammalian <u>neuronal</u> cells, each comprising a UTR region of a eukaryotic mRNA selected from <u>one</u> of said <u>posttranscriptional regulatory elements being a tau 3'UTR region, and the other one <u>being</u> a WPRE element, tau 3'UTR, TH3'UTR and APPS'UTR.</u>
- 36. (Currently Amended) The vector of claim 35, wherein <u>said vector further</u> comprises a UTR region of a eukanyotic mRNA selected from a TH3'UTR and a <u>APP5'UTR region</u> at least one posttranscriptional regulatory element confers increased stability to mRNAs.

Claims 37-42. (Canceled)

- (Previously Presented) The vector of claim 35, wherein said WPRE element comprises SEQ ID NO: 1.
- (Currently Amended) The vector of claim [[35]]36, wherein said APP5'UTR region comprises SEQ ID NO: 2.
- (Previously Presented) The vector of claim 35, wherein said tau3'UTR region comprises SEQ ID NO: 3.

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46. (Currently Amended) The vector of claim [[35]]36, wherein said TH3'UTR region comprises SEO ID NO: 4.

- 47. (Currently Amended) The vector of claim 35, wherein said vector further comprises a promoter controlling transcription of the transgene in said mammalian neuronal cells.
- 48. (Previously Presented) The vector of claim 35, wherein said vector further comprises a marker gene.
- 49. (Previously Presented) The vector of claim 35, wherein said vector further comprises a polyadenylation signal operably linked to said transgene.

Claim 50. (Canceled)

- 51. (Previously Presented) The vector of claim 35, wherein said vector is selected from a replication-defective adenovirus, a replication-defective adenoassociated virus and a replication-defective retrovirus, including replication-defective lentiviruses.
- 52. (Previously Presented) The vector of claim 35, wherein the transgene is selected from a transgene coding for a growth factor, a neurotrophic factor, a cytokine, a ligand, a receptor, an immunoglobulin and an enzyme.
- 53. (Currently Amended) A recombinant <u>mammalian neuronal</u> cell comprising a plasmid or a recombinant viral vector for *in vitro* or *ex vivo* transgene delivery-into mammalian cells, wherein said vector comprises a chimeric genetic construct comprising a transgene operably linked to at least two distinct posttranscriptional regulatory elements functional in mammalian <u>neuronal</u> cells, <u>one of said</u>

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posttranscriptional regulatory elements being a tau 3'UTR region, and the other one

being each comprising a UTR region of a eukaryotic mRNA selected from a WPRE

element, tau 3'UTR, TH3'UTR and APP5'UTR.

Claims 54-57. (Canceled)

58. (Currently Amended) A method of expressing a transgene in a mammalian

neuronal cell in vitro or ex vivo, the method comprising:

a) providing a plasmid or a recombinant viral vector wherein said vector

comprises a chimeric genetic construct comprising a transgene operably linked to at

least two distinct posttranscriptional regulatory elements functional in mammalian

neuronal cells, one of said posttranscriptional regulatory elements being a tau 3'UTR

region, and the other one beingeach comprising a UTR region of a eukaryotic mRNA

selected from a WPRE element, tau 3'UTR, TH3'UTR and APP5'UTR, and

b) introducing said vector into mammalian cells, said introduction causing

expression of said transgene in said mammalian cells.

Claims 59-60. (Canceled)

61. (Previously Presented) The method of claim 58, wherein said mammalian

cell is a human cell or a rodent cell.

62. (Previously Presented) The method of claim 58, wherein the chimeric

genetic construct is introduced into mammalian cells by virus-mediated infection.

63. (Previously Presented) The method of claim 58, wherein the chimeric

genetic construct is introduced into cells by plasmid-mediated transfection.

Claims 64-65. (Canceled)

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66. (Previously Presented) A method of expressing in vitro or ex vivo a

transgene in neuronal cells, the method comprising:

a) providing a plasmid or a recombinant viral vector comprising a chimeric

genetic construct comprising said transgene operably linked to posttranscriptional

regulatory elements comprising a WPRE element combined with a APP5'UTR and a

tau3'UTR, and

b) introducing said construct into neuronal cells, said introduction causing

expression of said transgene in said neuronal cells.

67. (Previously Presented) A method of expressing in vitro or ex vivo a

transgene in neuronal cells, the method comprising:

a) providing a plasmid or a recombinant viral vector comprising a chimeric

genetic construct comprising said transgene operably linked to posttranscriptional

regulatory elements comprising a WPRE element combined with a APP5'UTR, a

tau3'UTR and a TH3'UTR, and

b) introducing said construct into neuronal cells, said introduction causing

expression of said transgene in said neuronal cells.

Claims 68-69. (Canceled)

70. (Previously Presented) A method of expressing in vitro or ex vivo a transgene

in neuronal cells, the method comprising:

a) providing a plasmid comprising a chimeric genetic construct comprising said

transgene operably linked to posttranscriptional regulatory elements comprising a

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WPRE element comprising SEQ ID NO: 1 combined with a APP5'UTR comprising SEQ ID NO: 2 and a tau3'UTR comprising SEQ ID NO: 3, and

- b) introducing said plasmid into neuronal cells, said introduction causing expression of said transgene in said neuronal cells.
- 71. (Previously Presented) A method of expressing in vitro or ex vivo a transgene in neuronal cells, the method comprising:
- a) providing a plasmid comprising a chimeric genetic construct comprising said transgene operably linked to posttranscriptional regulatory elements comprising a WPRE element comprising SEQ ID NO: 1 combined with a APP5'UTR comprising SEQ ID NO: 2, a tau3'UTR comprising SEQ ID NO: 3 and a TH3'UTR comprising SEQ ID NO: 4, and
- b) introducing said plasmid into neuronal cells, said introduction causing expression of said transcene in said neuronal cells.